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Iowa City, Iowa 52242

COMPLAINTS 17/83-6

University Hygienic Laboratory

(319) 353-5990

25 August 1983



1847

Mr. Merritt Van Lier
Iowa Department of Water, Air
and Waste Management
Regional Office #6
Box 27
117 North Second Avenue
Washington, Iowa 52353

Dear Mr. Van Lier:

The results of the analyses on the sample collected 7/19/83 at the Umthun Trucking well in Buffalo, Iowa (Lab No. 3-3970) are enclosed.

The sample was also analyzed for nitrate (2020 mg/L) and pH (2.7) which are comparable to the previous sample.

The data does not provide any definitive information however it  $\underline{\ }$  does give some possibilities.

- The high chloride, sulfate and nitrate is indicative of the presence of all three: nitric, hydrochloric, and sulfuric acids.
- The manganese and iron are both very high which could be from the material or because of the pH, from naturally occurring sources.
- 5. The parium level is lower than normally found in ground water.
- 4. The presence of vanadium at levels higher than lead and chromium is unusual.
- 5. The levels of chromium, copper, lead, zinc and vanadium are all higher than normally found in ground water.

If we can be of further assistance please contact me.

Disty Hotover

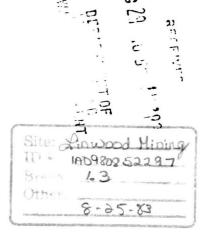
Gary Robertson Chemist

Cilin

Enclosure

30815347 Superfund

cc: Dr. Splinter
Mr. Friel
External File



HYGIENIC LA. ATORY, Des Moines Branch
H.A. WALLACE BUILDING
DES MOINES 10WA 50319

			DESI	MOTIVES, TOWA	00319		
Town	Buffalo						
Source							
Specific Location		V				•	
Specific Location				î.	. a		
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D. C. C. Parted	7/19/83						
Date Collected	7/27/83						
Date Received	3-3970						
Lab Number			EIELD D	4 T 4			
			FIELD D.	AIA			
Collection Time				4			
ΡΗ							
Temperature			٠.				
Dissolved Oxygen							
	BACTERIOLOGICAL EXAMINATION						
Fecal Coliform/100 ml							
	CHEMICAL ANALYSIS (as mg/l unless designated otherwise)						
Conductance (micromhos)		-				*	
MBAS (as LAS)	*					-	
pid (units)			-			-	
Alkalinity: P							
T							
NITROGEN: Organic N							
Ammonia N		14	ta .				
Nitrite N			8 A A		*	•	
SEE MODELLES OF THE PARTY OF TH						*	
Nitrate N							
Nitrate as NO <sub>3</sub>							
RESIDUE: Total			-				
Fixed							
Volatile	· · · · · · · · · · · · · · · · · · ·						
Filtrable Residue T							
F							
v							
Nonfiltrable Residue T		-					
F							
V					-		
Settleable Matter (ml/i)							
PHOSPHATE: Filtrable P							
Total P							
Dissolved Oxygen			1				
BOD							
COD			1				
Grease or Oil							
Turbidity (JTU)							
Total Hardness (as CaCO <sub>3</sub> )							
Calcium (Ca <sup>++</sup> )						*	
Magnesium (Mg ++)							
Chlorida (CD)	1300						
Chloride (CI)	3700				İ		
Sulfate (SO <sub>4</sub> T)	20			•			
Manganese	1.77				1		
Iron	1				1		
					1		
	1		1		1		

REMARKS:

COLLECTION 1

M. VanLier
Gary Robertson
Get - Lowa City

W.J. HAUSLER, JR., Ph.D. DIRECTOR

2317 35

STATE HYGIENIC LABORATORY, Des Moines Brench The University 10...

515:281-537

METALS

Town Source Specific Location	Buffalo		,
Date Collected Date Received Lab Number	7/19/83 7/27/83 3-3970		
	METALS ANALYSIS (as m	g/I unless designated otherwise)	,
Arsenic	<0.01		I
Barium	0.1		
Cadmium	0.05	8	
Chromium, Total	0.54		
Chromium, Hexavalent		E	
Copper	3.7		
Lead	0.34		
Mercury	<0.001		
Nickel			
Selenium	<0.01		L.
Silver	<0.01	:	
Zinc	6.3		
Vanadium	1.7		

REMARKS:

COLLECTOR REPORT TO

M. VanLier Gary Robertson UHL-Iowa City

Date Reported AUG 1 7 1983

W.J. Hausler Jr., Ph.D. Director .